

IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Currently Amended): A flame synthesized aluminum nitride filler-powder comprising elements Al, O and N, or comprising elements Al and N, wherein the particle size of the powder is included within the range of 0.001 to 500 μm , the mean particle size thereof is within the range of 1 to 100 μm , the external shape of the particles is ~~non-squarish~~, the ~~surface roughness of the particles is smooth~~, and the ~~degree of circularity of the particles is about 1~~ spherical with a ratio of long axis diameter to short axis diameter being about 1, and the surface roughness of the particles with a ratio of the square of perimeter to the projected area measured based on SEM photographs being about 1.

Claim 2 (Original): The powder according to claim 1, wherein said powder is manufactured in the presence of a combustion flame of a single combustible gas consisting of elements C or H, a combustion flame of a mixed gas consisting of a combustible gas and oxygen, a reducing combustion flame in which the proportions of the combustible gas and oxygen are adjusted so that the amount of oxygen is less than the amount of oxygen in the perfect combustion ratio, a flame created by the plasma of an inert gas, or an arc flame generated between metals in a non-contact state to which a high voltage is applied.

Claim 3 (Previously Presented): The powder according to claim 1, wherein the raw material is a powder consisting of element Al whose particle size is included within the range 0.01 to 500 μm , and a nitridation reaction is proceeded by using a flame in the presence of nitrogen, ammonia, nitrogen and an inert gas, or ammonia and an inert gas.

Claim 4 (Previously Presented): The powder according to claim 1, wherein the raw material is a mixture of a powder consisting of elements Al and O and a powder consisting of element C whose respective particle sizes are included within the range of 0.001 to 500 μm , and a nitridation reaction is proceeded by using a flame in the presence of nitrogen, ammonia, nitrogen and an insert gas, or ammonia and an inert gas.

Claim 5 (Previously Presented): A powder prepared by
subjecting the powder according to Claim 1 to a heat treatment either continuously or intermittently in a temperature range of from 500 to 10,000°C in the presence of air, nitrogen, ammonia or an inert gas, or in a vacuum state, by using a flame or an apparatus that is capable of applying a high temperature to the powder.

Claim 6 (Withdrawn): A method for manufacturing the powder defined in any of claims 1 through 5, containing elements Al, O and N or containing elements Al and N, said method comprising the steps of:

forming a raw-material powder whose particle size is included within the range of 0.001 to 500 μm , and whose mean particle size is within the range of about 10 to 100 μm , into a highly dispersed and stable fluidized state or aerosol state;

subjecting said raw-material powder to a nitridation reaction in which direct nitridation or reduction nitridation is performed in the presence of a flame, so that a nitride is synthesized; and if necessary heat-treating said nitride.

Claim 7 (Previously Presented): A raw-material powder consisting of the powder according to Claim 1 comprising elements Al, O and N or a powder comprising elements Al and N, wherein the powder is used as a raw-material powder in a composite material system

in which a powder comprising of inorganic materials is to be filled in a resin type raw material comprising organic materials.

Claim 8: (Withdrawn): An apparatus which is used to manufacture the powder defined in any of claims 1 through 5, comprising a flame generating device, a raw-material powder supply device and a device which supplies air, nitrogen, ammonia or an inert gas as the constituent elements of the apparatus, wherein a nitridation reaction of the raw-material powder is proceeded in a vapor phase in the presence of a flame.

Claim 9 (Withdrawn): The manufacturing apparatus according to claim 8, containing a flame generating device with a structure in which a plurality of cylindrical tubes having different internal diameters are combined in a coaxial configuration as a constituent element of the apparatus, wherein the raw-material powder is supplied to any of the cylindrical tubes, a reaction gas is supplied to other cylindrical tubes, the raw-material powder and the reaction gas are diffused and mixed in the vicinity of the tip end portions of the cylindrical tubes containing the raw-material powder, and a nitridation reaction of the raw-material powder is proceeded in a vapor phase in the presence of a flame.

Claim 10 (Previously Presented): A powder prepared by
subjecting the powder according to Claim 2 to a heat treatment either continuously or intermittently in a temperature range of from 500 to 10,000°C in the presence of air, nitrogen, ammonia or an inert gas, or in a vacuum state, by using a flame or an apparatus that is capable of applying a high temperature to the powder.

Claim 11 (Previously Presented): A raw-material powder consisting of the powder according to Claim 10 comprising elements Al, O and N or a powder comprising elements Al and N, wherein the powder is used as a raw-material powder in a composite material system in which a powder comprising inorganic materials is to be filled in a resin type raw material comprising organic materials.

Claim 12 (Previously Presented): A raw-material powder consisting of the powder according to Claim 2 comprising elements Al, O and N or a powder comprising elements Al and N, wherein the powder is used as a raw-material powder in a composite material system in which a powder comprising inorganic materials is to be filled in a resin type raw material comprising organic materials.

Claim 13 (Previously Presented): A powder prepared by
subjecting the powder according to Claim 3 to a heat treatment either continuously or intermittently in a temperature range of from 500 to 10,000°C in the presence of air, nitrogen, ammonia or an inert gas, or in a vacuum state, by using a flame or an apparatus that is capable of applying a high temperature to the powder.

Claim 14 (Previously Presented): A raw-material powder consisting of the powder according to Claim 13 comprising elements Al, O and N or a powder comprising elements Al and N, wherein the powder is used as a raw-material powder in a composite material system in which a powder comprising inorganic materials is to be filled in a resin type raw material comprising organic materials.

Claim 15 (Previously Presented): A raw-material powder consisting of the powder according to Claim 3 comprising elements Al, O and N or a powder comprising elements Al and N, wherein the powder is used as a raw-material powder in a composite material system in which a powder comprising inorganic materials is to be filled in a resin type raw material comprising organic materials.

Claim 16 (Previously Presented): A powder prepared by
subjecting the powder according to Claim 4 to a heat treatment either continuously or intermittently in a temperature range of from 500 to 10,000°C in the presence of air, nitrogen, ammonia or an inert gas, or in a vacuum state, by using a flame or an apparatus that is capable of applying a high temperature to the powder.

Claim 17 (Previously Presented): A raw-material powder consisting of the powder according to Claim 16 comprising elements Al, O and N or a powder comprising elements Al and N, wherein the powder is used as a raw-material powder in a composite material system in which a powder comprising inorganic materials is to be filled in a resin type raw material comprising organic materials.

Claim 18 (Previously Presented): A raw-material powder consisting of the powder according to Claim 4 comprising elements Al, O and N or a powder comprising elements Al and N, wherein the powder is used as a raw-material powder in a composite material system in which a powder comprising inorganic materials is to be filled in a resin type raw material comprising organic materials.

Claim 19 (Previously Presented): A raw-material powder consisting of the powder according to Claim 5 comprising elements Al, O and N or a powder comprising elements Al and N, wherein the powder is used as a raw-material powder in a composite material system in which a powder comprising inorganic materials is to be filled in a resin type raw material comprising organic materials.

Claim 20 (Previously Presented): An aluminum nitride filler-powder, consisting of elements Al, O and N, or consisting of elements Al and N, wherein the particle size of the powder is from 0.001 to 500 μm , the mean particle size thereof is from about 10 to 100 μm , and the external shape of the particles is spherical.